

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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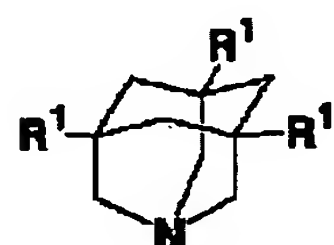
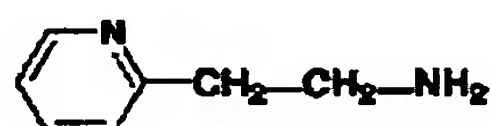
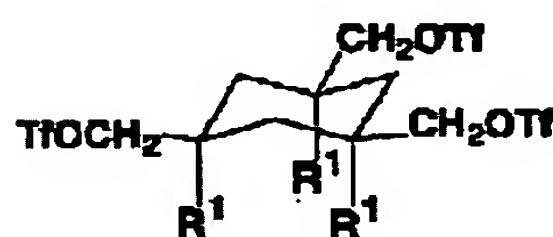
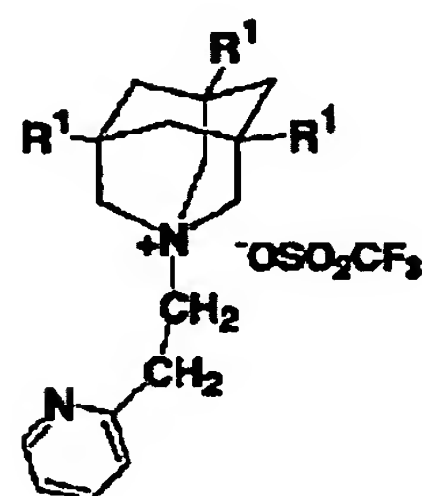
APPLICATION DATE : 09-07-99  
APPLICATION NUMBER : 11196101

APPLICANT : AGENCY OF IND SCIENCE &  
TECHNOL;

INVENTOR : FUTAMURA SHIN;

INT.CL. : C07D471/18

TITLE : AZONIAADAMANTANE COMPOUND,  
PRODUCTION OF AZAADAMANTANE  
COMPOUND FROM THE SAME AND  
PRODUCTION OF THE  
AZONIAADAMANTANE COMPOUND



ABSTRACT : PROBLEM TO BE SOLVED: To obtain an azoniaadamantane compound useful as an intermediate for synthesizing an azaadamantane compound by a few process safely and industrially advantageously.

SOLUTION: This azoniaadamantane compound is represented by formula I (R¹ is an alkyl). The compound of formula I can be obtained by reacting a trifluoromethanesulfonic acid ester of formula II (OTf is trifluoromethanesulfonic acid group) with a primary amine compound of formula III. The compound of formula I is treated with an acid or a base to synthesize an azaadamantane compound of formula IV by one step. Consequently, the azaadamantane compound of formula IV expected to be useful for an antiarrhythmic agent, a medicine for cardiovascular disease, or the like, a solid electrolyte, a sensor, or the like, can be obtained by one step safely in a high yield. The compound of formula I is expectable for application to the above uses due to the similarity of structure.

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